

# CAT DV43 RTCH



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# About Powermax Equipment

## PURPOSE

The Purpose of Powermax is to repair, rebuild, and refurbish mining, construction, and other types of equipment.

## MISSION

The Mission of Powermax is to be an area leader in repairing, rebuilding, and refurbishing equipment and to be known for selling a quality product at a fair price. We will try to use the best repair materials available and employ a highly skilled workforce to produce a superior product that will stand up to hard use.

## DEPENDABLE SERVICE

Service is very important to Powermax. We believe if we make a promise then we must deliver. That's important because we believe that having the products you need, when you need them, may mean the difference between making money and losing money.

If a certain type of equipment is needed and we do not have it, then we will make every effort possible to find that particular item in good condition and at a fair price.

## CORE VALUES

- We take great pride in our company's name and want to sell a quality product.
- We strive to be a positive example by our honesty and fairness.
- We work together as a team to create a clean and safe work environment.
- We hold ourselves accountable to our workplace, our families, and our community.
- We treat others the way we would want to be treated: with respect and integrity.

Powermax  
EQUIPMENT

# CAT DV43 RTCH

## ROUGH TERRAIN CONTAINER HANDLER

Assembled from CAT 988B with CAT approved weights, mast, etc.

### GENERAL INFORMATION

The CAT DV43 RTCH is a Rough Terrain Container Handler which was built from a CAT 988B wheel loader. It is a refurbished 4 wheel drive unit designed for use on rough terrain or to travel through water 60" deep.

The original primary use of the CAT DV43 was to lift and transport 8' wide containers varying in length from 20', 35' or 40'. This is done through the use of a hydraulically operated top handler made specifically for each length. The containers can weigh as much as 25 tons and can be stacked two high.

**In addition to handling containers, with optional special attachments, the RTCH may be used for a number of other applications as follows:**

- Unit is capable of having valves modified to add up to 3 hydraulic functions to operate special equipment attachments.
- Remove and transport engines for rebuilding, saving the cost of another means of handling.
- Transport large equipment tires for repair, saving the need for a special tire handling unit.
- Use for unloading heavy items from containers on to low boy trailers without the use of an extra forklift.
- Hauling rolls of rubber conveyor material for assembly or replacement; therefore, replacing the need of other handling equipment.
- Hauling track group material for replacement on dozers, excavators, and other equipment.
- Transport 25 ton steel coils to work stations eliminating the need of an extra crane.
- Assist in the clean-up of derailed rail cars while waiting for specialized rail equipment.

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EQUIPMENT



## CAT DV43 RTCH



**50,000 lb. Lift Capacity**

## CAT DV43 RTCH



**Dual Tilt Cylinders with 9 Second Cycling Time**



**CAT DV43 RTCH**

**Side Shift and  
Rotating Cylinders  
for Load Adjustment**



**Rear Counterweights  
16,000 lbs.**

**CAT DV43 RTCH**





## CAT DV43 RTCH



**Radial Tires - Michelin 35/65 - R33**

## CAT DV43 RTCH



**CAT 3408T Engine - 393 Horsepower**



# CAT DV43 RTCH



**40' Container Handler**

# CAT DV43 RTCH

**Capable of Stacking  
2 Containers High**





# CAT DV43 RTCH



**Container Handler Latches Hydraulically;  
Operated from Inside Cab**



**CAT DV43 RTCH  
Fully Detailed**



# CAT DV43 R T C H

## ROUGH TERRAIN CONTAINER HANDLER

(Assembled from CAT 988B with CAT approved weights, mast, etc.)

### ORIGINAL EQUIPMENT DATA & SPECIFICATIONS

<b>Length:</b>	
Overall .....	35.25 ft (10.74 m)
Between Steering Pivot and Rear Axle .....	6.25 ft (1.91 m)
20 Ft Tophandler .....	19.8 ft (6.04 m)
35 Ft Tophandler .....	34.9 ft (10.64 m)
40 Ft Tophandler .....	39.7 ft (12.10 m)
20 Ft Tophandler (from Container Lock to Container Lock) .....	19.2 ft (5.85 m)
35 Ft Tophandler (from Container Lock to Container Lock) .....	34.25 ft (10.44 m)
40 Ft Tophandler (from Container Lock to Container Lock) .....	39.3 ft (11.98 m)
<b>Width:</b>	
Overall .....	11.66 ft (3.51 m)
Mast Width .....	9 ft (2.74 m)
20 Ft Tophandler .....	8.3 ft (2.53 m)
35 Ft Tophandler .....	8.3 ft (2.53 m)
40 Ft Tophandler .....	8.3 ft (2.53 m)
Wheelbase .....	12.5 ft (3.81 m)
<b>Height:</b>	
Top of ROPS .....	13.25 ft (4.04 m)
Top of Mast (Lowered) .....	13.9 ft (4.24 m)
Top of Mast (Fully Extended) .....	19.1 ft (5.82 m)
<b>Weight:</b>	
Shipping Weight (70% Fuel, Without Tophandler) .....	105,120 lb (47,768 kg)
Operational Weight (Without Tophandler) .....	103,230 lb (46,824 kg)
Operational Weight (with 20 Ft Tophandler) .....	107,030 lb (48,558 kg)
Operational Weight (with 35 Ft Tophandler) .....	112,350 lb (50,961 kg)
Operational Weight (with 40 Ft Tophandler) .....	113,160 lb (51,329 kg)
20 Ft Tophandler .....	3,800 lb (1,724 kg)
35 Ft Tophandler .....	9,120 lb (4,137 kg)
40 Ft Tophandler .....	9,930 lb (4,504 kg)
<b>Maximum Speed:</b>	
With Rated Load (Forward) .....	14.5 mph (23.3 kph)
With Rated Load (Reverse) .....	14.9 mph (24 kph)
Without Rated Load (Forward) .....	18.5 mph (29.8 kph)
Without Rated Load (Reverse) .....	19.4 mph (31.2 kph)
<b>Towing</b> .....	
	5 mph (8 kph)
	for 10 miles (16 km) max
Maximum Grade* .....	15% at 2 mph (3.2 kph)
Maximum Fording Depth* .....	60 in. (150 cm)
Maximum Side Slope* .....	15 degrees
Maximum Breakover Angle* .....	148 degrees
Maximum Approach Angle* .....	25 degrees
Maximum Departure Angle* .....	20 degrees
Maximum Ground Clearance* .....	16 in. (40 cm)
Curb Circle Clearance .....	70 ft (21 m)
Tilt Cycling Time (Each Direction)** .....	9 seconds
Lifting Capacity .....	50,000 lb (22,679 kg)

\*Tophandler with container raised 1 ft (30 cm) full back tilt.

\*\*Tophandler with container raised 1 ft (30 cm).



## EQUIPMENT DATA - CONTINUED

### Engine:

Manufacturer .....	Caterpillar Inc.
Type .....	Direct injection, 65 degree V-8 turbo diesel
Model .....	3408T
Flywheel Power at 2,100 RPM .....	393 HP (293 kW)
Torque at 1,300 RPM .....	1,210 lb-ft (1,640 Nm)
Engine RPM (Low Idle) .....	700 RPM
Engine RPM (High Idle) .....	2,320 RPM
Injector Timing .....	28 degrees (BTC)
Bore .....	5.4 in. (137 mm)
Stroke .....	6 in. (152 mm)
Displacement .....	1,099 CID (18 L)
Compression Ratio .....	14.5:1
Firing Order .....	1-8-4-3-6-5-7-2
Fuel .....	Diesel no.2
Weight .....	3,200 lb (1,451 kg)

### Transmission and Powertrain:

Manufacturer .....	Caterpillar Inc.
Type .....	Power shift planetary
Transmission Reduction Ratio in First .....	5.6049
Transmission Reduction Ratio in First (Reverse) .....	4.9043
Transmission Reduction Ratio in Second .....	3.1429
Transmission Reduction Ratio in Second (Reverse) .....	2.7500
Transmission Reduction Ratio in Third .....	1.7751
Transmission Reduction Ratio in Third (Reverse) .....	1.5532
Transmission Reduction Ratio in Fourth .....	1.0000
Transmission Reduction Ratio in Fourth (Reverse) .....	0.8750
Weight .....	1,756 lb (796 kg)

### Transfer Case:

Transfer Case Reduction Ratio (Input) .....	1.0256
Transfer Case Reduction Ratio (Output) .....	1.1795
Weight .....	1,080 lb (490 kg)
Final Drive Reduction Ratio .....	5.0526
Bevel Gear Reduction Ratio .....	3.7500

### Axles:

Axle Oscillation (Front) .....	Fixed
Axle Oscillation (Rear) .....	±13 degrees

### Brakes:

Type .....	All wheel disc
Braking Surface .....	Full hydraulic oil bath disc
Pump Type .....	2,300 sq in. x 4 (14,839 cm <sup>2</sup> )
Output .....	Gear
Relief Valve Setting .....	28 gpm at 1,000 psi (1.8 L/sec at 7,000 kPa)
Weight .....	2,200 psi (15,168 kPa) 70 lb (32 kg) non-adjustable



## EQUIPMENT DATA - CONTINUED

### Tires:

Type .....	Radial
Size .....	35/65-R33
Front Inflation .....	70 psi (482 kPa)
Rear Inflation .....	40 psi (276 kPa)
Weight (Tire and Rim) .....	3,000 lb (1,361 kg)

### Steering:

Type .....	Full hydraulic, center point frame articulation
Steering Angle (Each Direction) .....	27 degrees
Pump Type .....	Gear
Output .....	101 gpm at 1,000 psi (6.4 L/sec at 7,000 kPa)
Relief Valve Setting .....	2,500 psi (17,236 kPa)
Operating Pressure (Max) .....	2,500 psi (17,236 kPa)
Weight .....	70 lb (32 kg)

### Capacities:

Fuel Tank .....	165 gal. (625 L)
Radiator .....	28 gal. (106 L)
Engine Crankcase .....	11 gal. (41.6 L)
Hydraulic System .....	78 gal. (295.3 L)
Transmission and Differential .....	24 gal. (91 L)

### Electrical System:

Batteries .....	Lead-acid
Quantity .....	2
Type .....	8D
Voltage (Each Battery) .....	12V
Voltage (System) .....	24V
Alternator .....	Integral regulator
Type .....	Solid state
Amperage .....	50A

### Hydraulic System:

Type .....	Closed with vacuum relief
Pump:	
Type/Output .....	Gear, single stage/71 gpm (4.5 L/sec)
Relief Valve Setting .....	2,500 psi (17,236 kPa)
Operating Pressure (Max) .....	2,500 psi (17,236 kPa)
Weight .....	110 lb (50 kg)

### Cylinders:

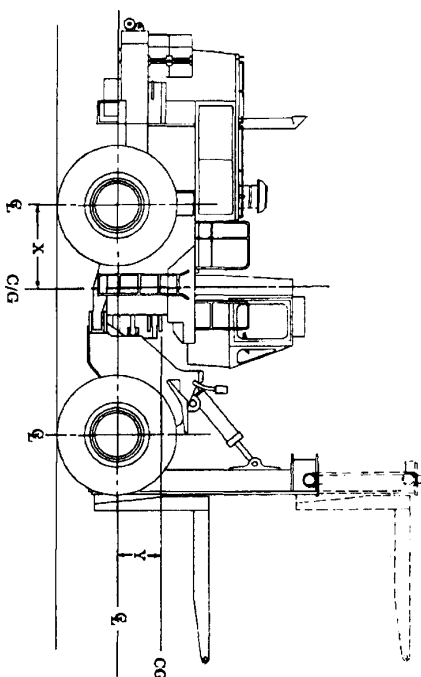
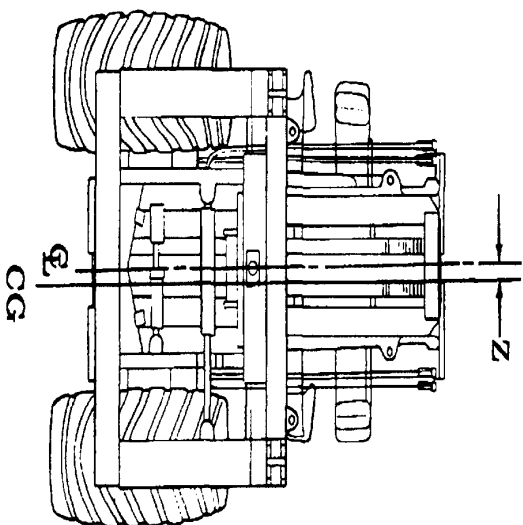
Lift (Bore x Stroke) .....	10 x 69 in. (25.4 x 175 cm)
Tilt (Bore x Stroke) .....	7 x 19.25 in. (17.8 x 49 cm)
Side Shift (Bore x Stroke) .....	6 x 24 in. (15.2 x 61 cm)
Side Tilt (Bore x Stroke) .....	6 x 6.5 in. (15.2 x 16.5 cm)

Specifications are Subject to Change Without Notice.



EQUIPMENT WEIGHTS AND WEIGHTS AND CENTER OF GRAVITY

Total Weight: 105,120 lb. (47,700 kg)  
Front Axle: 39,000 lb. (18,100 kg)  
Front Section: 40,000 lb. (18,100 kg)  
Rear Axle: 65,520 lb. (29,700 kg)  
Rear Section: 65,000 lb. (29,000 kg)  
Mast: 14,710 lb. (6670 kg)  
Fork: 5,920 lb. (2690 kg)  
Counterweights  
Rear: 16,000 lb. (7300 kg)



X = 55.94 in. (142 cm)  
Y = 24.29 in. (61.7 cm)  
Z = 0.197 in. (0.500 cm)

NOTE  
Weight is with 70%  
fuel in tanks, mast  
vertical, with fork,  
no tophandler



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